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(12) **United States Design Patent** (10) **Patent No.:** **US D533,200 S**
Braunschweig et al. (45) **Date of Patent:** **** Dec. 5, 2006**

(54) **ABRASIVE ARTICLE WITH HOLES**

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(51) **LOC (8) Cl.** **15-09**

(52) **U.S. Cl.** **D15/126; D8/70**

(58) **Field of Classification Search** D8/62, D8/70; D15/124-126, 138, 139; 451/47, 451/56, 324, 443, 541, 544, 547, 548-551
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,307,312	A	1/1943	Whiting	
2,358,861	A *	9/1944	Koether	451/548
2,564,217	A *	8/1951	Taylor	451/541
2,749,681	A	6/1956	Reidenbach	
2,749,683	A *	6/1956	Soderman	451/550
2,838,890	A	6/1958	McIntyre	

(Continued)

FOREIGN PATENT DOCUMENTS

EP	0 285 042	A1	10/1988
EP	1 488 888	A1	12/2004
EP	1 524 077	A1	4/2005
FR	2 659 892		9/1991
GB	2 017 485	A	10/1979
GB	2 057 483	A	4/1981
GB	2 162 213	A	1/1986
WO	WO 03/020474	A1	3/2003

OTHER PUBLICATIONS

- U.S. Appl. No. 11/228,896, Rambosek et al., filed Sep. 16, 2005.
- U.S. Appl. No. 11/229,281, Woo et al., filed Sep. 16, 2005.
- U.S. Appl. No. 29/238,541, Braunschweig et al., filed Sep. 16, 2005.
- U.S. Appl. No. 29/238,542, Braunschweig et al., filed Sep. 16, 2005.
- U.S. Appl. No. 29/238,556, Braunschweig et al., filed Sep. 16, 2005.
- U.S. Appl. No. 29/246,256, Shimizu et al., filed Mar. 28, 2006.
- U.S. Appl. No. 29/246,257, Shimizu et al., filed Mar. 28, 2006.
- U.S. Appl. No. 29/246,258 Shimizu et al., filed Mar. 28, 2006.
- U.S. Appl. No. 29/246,259, Shimizu et al., filed Mar. 28, 2006.
- U.S. Appl. No. 29/246,260, Shimizu et al., filed Mar. 28, 2006.
- U.S. Appl. No. 29/246,261, Shimizu et al., filed Mar. 28, 2006.
- U.S. Appl. No. 29/253,148, Braunschweig, filed Feb. 1, 2006.
- U.S. Appl. No. 29/253,110, Braunschweig, filed Feb. 1, 2006.
- U.S. Appl. No. 29/253,084, Braunschweig, filed Feb. 1, 2006.

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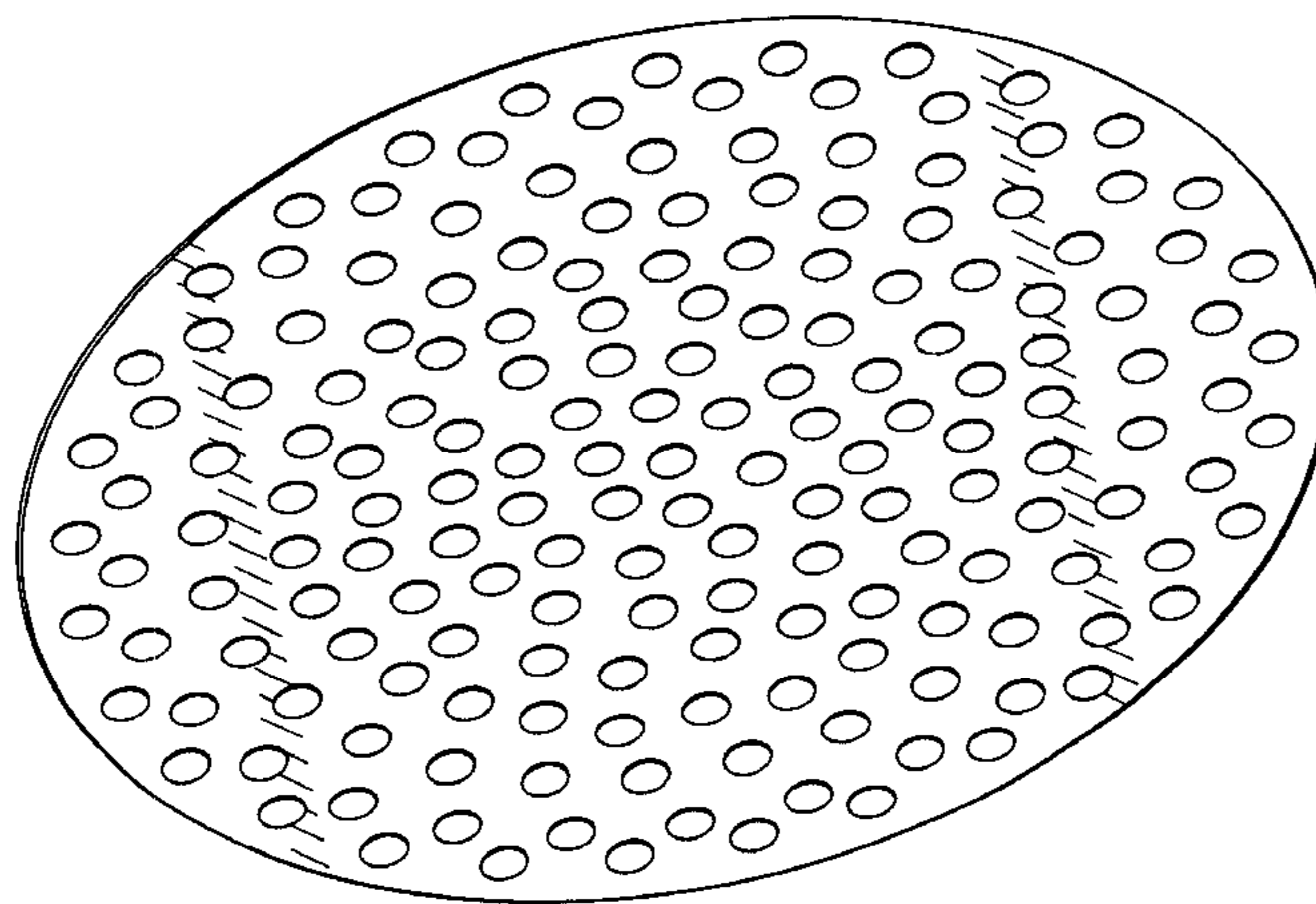
(57) **CLAIM**

The ornamental design for an abrasive article with holes, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of an abrasive article with holes, as shown;
FIG. 2 is a top view thereof;
FIG. 3 is a bottom view thereof; and,
FIG. 4 is a front side view thereof; the left, right, and back side views being identical thereto.

1 Claim, 2 Drawing Sheets



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U.S. PATENT DOCUMENTS

3,021,649	A	2/1962	Robbins				
3,353,308	A	11/1967	Zane				
3,386,214	A	* 6/1968	Shoemaker	451/488		
3,426,486	A	* 2/1969	Kubsh	.....	451/488		
3,932,966	A	1/1976	Stern				
4,062,152	A	12/1977	Mehrer				
4,158,935	A	6/1979	Robert				
4,287,685	A	9/1981	Marton				
D277,486	S	2/1985	Yanagiura				
4,631,220	A	12/1986	Clifton				
4,964,243	A	10/1990	Reiter				
4,964,245	A	10/1990	Braasch				
5,007,206	A	4/1991	Paterson				
5,022,191	A	* 6/1991	Broido	.....	451/550		
5,667,433	A	* 9/1997	Mallon	.....	451/287		
5,674,122	A	10/1997	Krech				
5,807,161	A	9/1998	Manor et al.				
5,810,650	A	9/1998	Jöst				
5,989,112	A	11/1999	Long et al.				
D421,029	S	* 2/2000	Cha	.....	D15/139		
6,059,644	A	5/2000	Manor et al.				
D426,560	S	6/2000	Texler				
6,077,156	A	6/2000	Amin et al.				
6,190,246	B1	2/2001	Parrott et al.				
6,312,325	B1	11/2001	Van Osenbruggen				
6,368,199	B1	4/2002	Van Osenbruggen				
6,371,842	B1	4/2002	Romero				
D460,767	S	* 7/2002	Kim et al.	.....	D15/139		
6,419,574	B1	7/2002	Takahashi et al.				
6,575,821	B1	6/2003	Jöst				
2003/0003856	A1	1/2003	Swei				
2003/0054746	A1	* 3/2003	Nussbaumer et al.	.....	451/548		
2003/0159363	A1	8/2003	Chesley et al.				
2004/0072510	A1	* 4/2004	Kinoshita et al.	.....	451/56		
2006/0019579	A1	1/2006	Braunschweig				

* cited by examiner

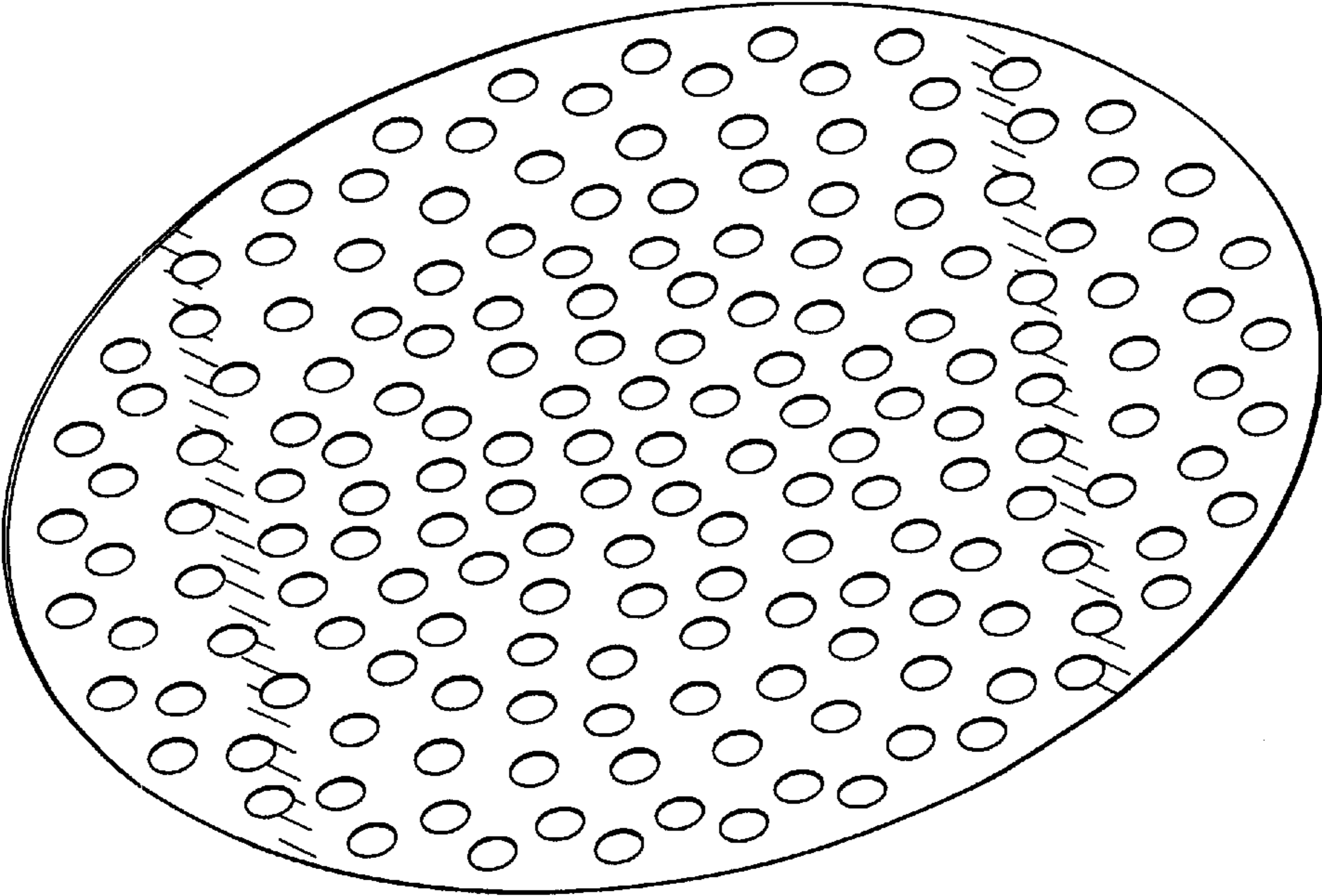


Fig. 1

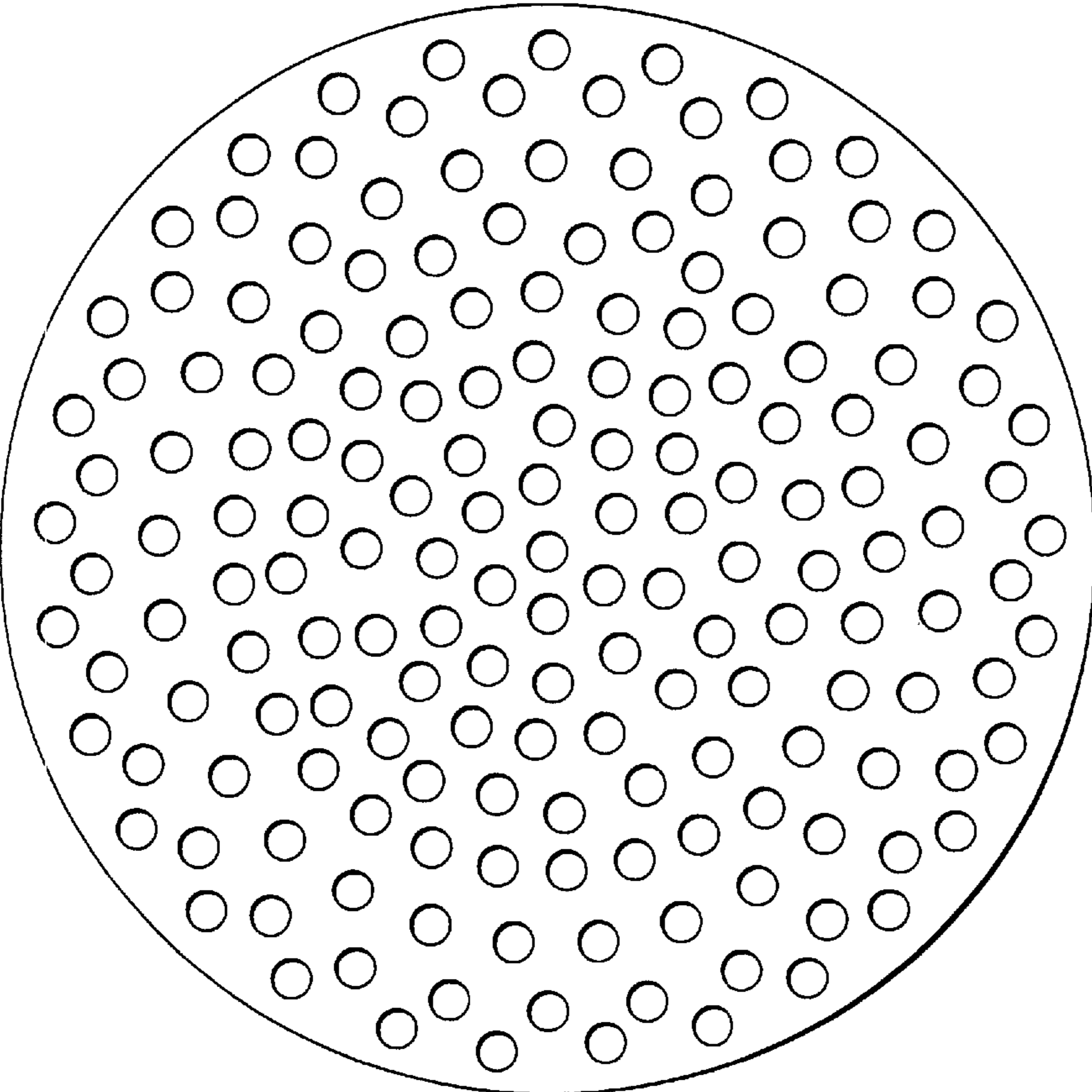


Fig. 2

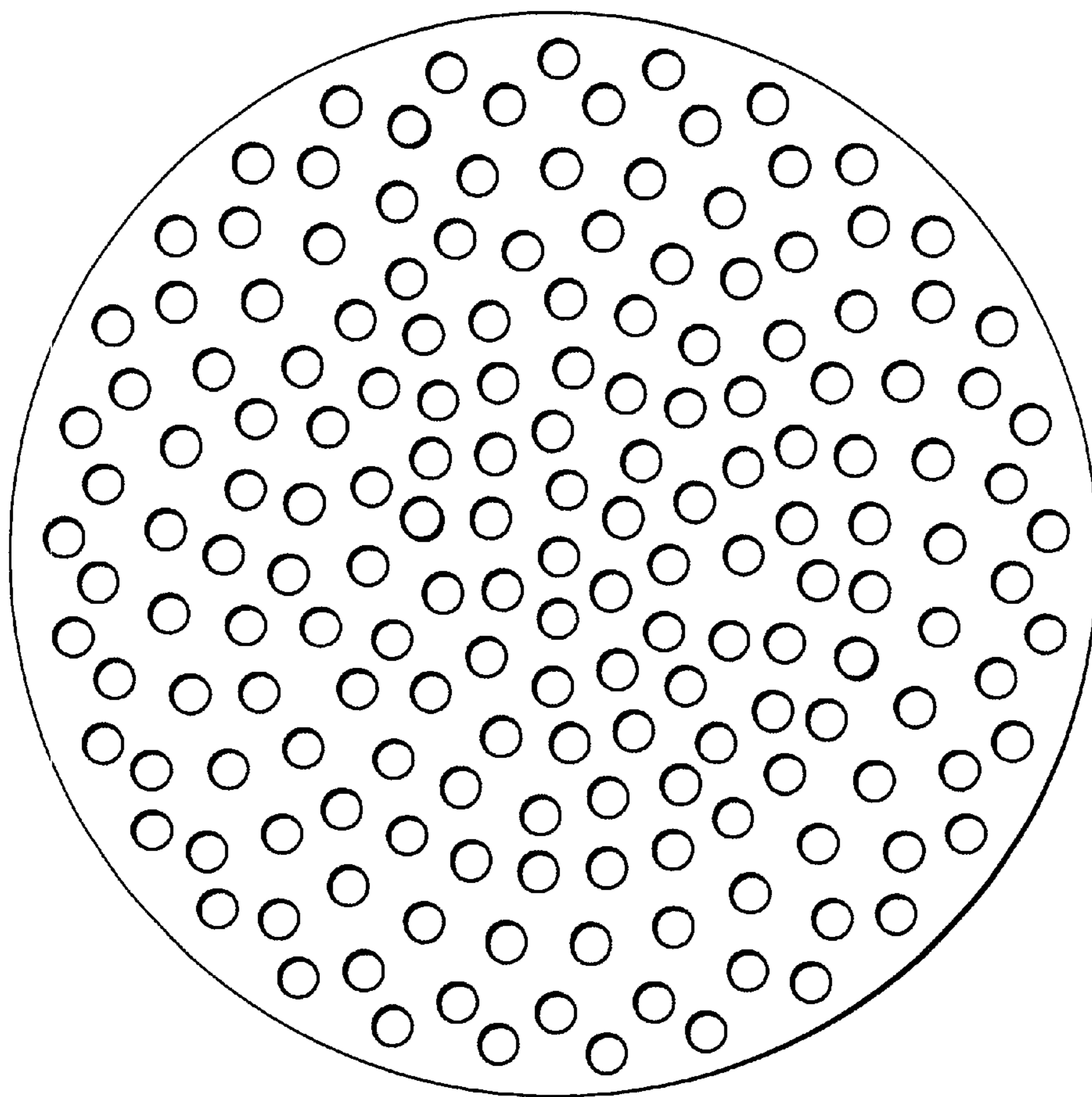


Fig. 3



Fig. 4